

AMENDMENTS TO THE CLAIMS

All claims currently pending and under consideration in the present application are shown below. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-24. (Canceled)

25. (Currently Amended) A computer-implemented method in a computer system for processing hereditary data related to the use of clinical agents by a person, the method comprising the steps of:

publishing a graphical user interface (GUI) that is configured to solicit input from a clinician to ascertain whether to authorize performing a genetic test on a patient, wherein the GUI displays fields that reveal an identification of the person and an identification of the genetic test to be performed, that is configured to receive approval from the clinician to carry out the genetic test, and that is configured to receive receiving a genetic test result value of the genetic test for the person;

querying a computerized table listing polymorphism values and atypical clinical events associated with the polymorphism values;

determining if the genetic test result value is a polymorphism value associated with an atypical clinical event, and if so, accessing a list of risk-associated agents; and

outputting an interpretation of the genetic test result value and the list of risk-associated agents.

26. (Original) The method of claim 25, further comprising the step of determining if the person has been exposed to an agent on the list of risk-associated agents.

27. (Original) The method of claim 26, wherein the step of determining if the person has been exposed includes accessing an electronic medical record of the person.

28. (Original) The method of claim 27, wherein the electronic medical record is stored within a comprehensive healthcare system.

29. (Original) The method of claim 26, further comprising the step of initiating a clinical action if the person has been exposed to an agent on the list of risk-associated agents.

30. (Original) The method of claim 29, wherein the clinical action is generating an electronic message to inform a clinician to no longer administer the agent.

31.–54. (Canceled)

55. (Currently Amended) A computer system for processing hereditary data related to the use of clinical agents by a person, comprising:

a displaying component for publishing a graphical user interface (GUI) that is configured to solicit input from a clinician to ascertain whether to authorize performing a genetic test on a patient, wherein the GUI displays fields that reveal

an identification of the person and an identification of the genetic test to be performed;

a receiving component that receives approval from the clinician to carry out the genetic test and a genetic test result value for the person;

a querying component for querying a computerized table listing polymorphism values and atypical clinical events associated with the polymorphism values;

a first determining component that determines if the genetic test result value is a polymorphism value associated with an atypical clinical event;

an accessing component that accesses a list of risk-associated agents if the determining component determines that a genetic test result value is polymorphism value associated with an atypical event; and

an outputting component that outputs an interpretation of the genetic test result value and the list of risk-associated agents.

56. (Original) The computer system of claim 55, further comprising a second determining that determines if the person has been exposed to an agent on the list of risk-associated agents.

57. (Original) The computer system of claim 56, wherein the second determining component determines if the person has been exposed includes an accessing component that accesses an electronic medical record of the person.

58. (Original) The computer system of claim 57, wherein the electronic medical record is stored within a comprehensive healthcare system.

59. (Original) The computer system of claim 56, further comprising an initiating component that initiates a clinical action if the person has been exposed to an agent on the list of risk-associated agents.

60. (Original) The computer system of claim 59, wherein the clinical action is generating an electronic message to inform a clinician to no longer administer the agent.

61.–84. (Canceled)

85. (Currently Amended) ~~A computer readable medium containing instructions~~ One or more computer storage media having computer-executable instructions embodied thereon that, when executed, perform a method for processing hereditary data related to the use of clinical agents by a person, the method comprising the steps of:

publishing a graphical user interface (GUI) that is configured to solicit input from a clinician to ascertain whether to authorize performing a genetic test on a patient, wherein the GUI displays fields that reveal an identification of the person and an identification of the genetic test to be performed, that is configured to receive approval from the clinician to carry out the genetic test, and that is configured to receive ~~receiving a genetic test~~ result value of the genetic test for the person;

querying a computerized table listing polymorphism values and atypical clinical events associated with the polymorphism values;

determining if the genetic test result value is a polymorphism value associated with an atypical clinical event, and if so, accessing a list of risk-associated agents; and

outputting an interpretation of the genetic test result value and the list of risk-associated agents, wherein outputting includes automatically ordering follow-up tests, automatically scheduling counseling for the person, automatically storing the interpretation in the person's electronic medical record, and automatically providing a notification in an email addressed to a physician that informs the physician to no longer administer the agent, wherein the physician is identified by the person's electronic medical record.

86. (Currently Amended) The ~~computer-readable medium-computer storage media~~ of claim 85, further comprising the step of determining if the person has been exposed to an agent on the list of risk-associated agents.

87. (Currently Amended) The ~~computer-readable medium-computer storage media~~ of claim 86, wherein the step of determining if the person has been exposed includes accessing an electronic medical record of the person, wherein the heredity data and the electronic medical record are accessible and updatable by a healthcare system, and wherein updating comprises integrating the heredity data with newfound knowledge associating the heredity data with the risk-associated clinical agents.

88. (Currently Amended) The ~~computer-readable medium-computer storage media~~ of claim 87, wherein the electronic medical record is stored within a comprehensive healthcare system.

89. (Currently Amended) The ~~computer-readable medium-computer storage~~ media of claim 86, further comprising the step of initiating a clinical action if the person has been exposed to an agent on the list of risk-associated agents.

90. (Canceled)

91. (Currently Amended) A computer-implemented method ~~in a computer system~~ for processing hereditary data related to the use of clinical agents by a person, comprising the steps of:

receiving a genetic test result value for the person;

querying a computerized table listing polymorphism values and atypical clinical events associated with the polymorphism values;

determining if the genetic test result value is a polymorphism value associated with an atypical clinical event, and if so, accessing a list of risk-associated agents;

outputting an interpretation of the genetic test result value and the list of risk-associated agents; ~~and~~

~~determining if~~ ascertaining whether to automatically generate a low-risk clinical response or a high-risk clinical response based on whether the person has been exposed to an agent on the list of risk-associated agents;

if the person has been exposed to the agent on the list of risk-associated agents, automatically generating the high-risk clinical response that includes suspending an order for the agent and placing an alternative order for an agent that is absent from the list of risk-associated agents; and

otherwise, automatically generating the low-risk clinical response that includes adding a comment to the person's electronic medical record indicating that no risks were determined from the genetic test result value.

92. (New) The method of claim 25, further comprising the steps of:

accessing the person's demographic information stored in the electronic medical record;

utilizing the demographic information in cooperation with the computerized table listing polymorphism values and atypical clinical events associated with the polymorphism values to determine a likelihood of a genetic variation existing in the person and a severity of an atypical event associated with the genetic variation; and

publishing the GUI based on determined likelihood and severity.

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